

An appointment has been made for you to have *Autonomic Reflex Function Testing (AFTs)*:

Date and Time: ***

Location: ***

Please read these instructions carefully 4 weeks before your test date, and then please read them again in the few days before your testing.

Discuss any potential medication interactions described below or other concerns with the physician or other provider who ordered the AFT. If you and/or the ordering provider have questions, please call the facility where you are having your testing done to clarify. If you have to cancel for any reason, kindly call the AFT Lab at the *at least* 1 week before your appointment:

AFT lab contact information:

Massachusetts General Hospital: (617) 726-3644

MGB North (Wentworth-Douglas Hospital): (603) 749-0913

Brigham and Women's Hospital: (617) 533-0921

*If you weigh more than 350lbs (158.7 kg) or less than 45 lbs (20.4kg), there may be issues performing the test. Please inform the doctor who ordered the test

*One person may accompany adult patients in the room during testing. A parent or guardian is required to be present during testing for children < 18 years old. Additional family members or other guests will be asked to sit in the waiting room.

*Recording videos or taking photographs is not allowed in the procedure room.

What is an Autonomic Reflex Screen?

The *autonomic nervous system* is responsible for coordinating many automatic body processes, which you normally do not think about and cannot control. During AFTs, we test some of these functions, including the production of sweat, and the changes in blood pressure (BP) and heart rate (HR) under different conditions, using electrocardiography (ECG) and arm and cuff BP devices. None of the tests are invasive: all measurements are taken with electrodes or stickers on the surface of the skin, without needles. AFTs usually take approximately 2 hours. You will not get your results on the day of testing, and you may not see the doctor: ask the referring provider for results. Trained technicians perform the testing.

There are 4 types of routine tests, with occasional additions if needed:

- Deep breathing: This test measures changes in heart rate using ECG surface electrodes (stickers), placed on your chest while you take a series of timed deep breaths.
- Valsalva maneuver: This test measures changes in heart rate and blood pressure (using an inflatable device placed on your arm and fingers), while exhaling against resistance. During this part of test, you will breathe out forcefully into a mouthpiece for 15 seconds or as long as possible. This will be repeated a few times.

- **Tilt table test:** This test measures changes in heart rate and blood pressure with changes in position. The HR and BP are first recorded while you lie flat on your back for 5-10 minutes. Then the table you are lying on is tilted up to an angle of 70 degrees, and the HR and BP are measured for 10 minutes (although it can be shortened if you feel very unwell). You are then tilted back down.
- **Quantitative sudomotor axon reflex test/sweat measurement system (QSART/QSWEAT):** This test measures sweat production on the skin by using small capsules placed on the arm, upper leg, lower leg and foot. After cleaning the skin, a small electrical current is passed through the capsules. You might feel a little warmth, tingling, or discomfort under the capsules during testing.

Who interprets my results?

An autonomic specialist will interpret the results within 3-5 business days, and send a report to the ordering provider, who can discuss the results with you. The results will also be sent to your MyChart MGB Patient Gateway health portal. You may not see a physician on the day of ARTs. The technician performing the test cannot provide medical advice.

Preparation for testing:

4 weeks before your testing appointment:

There are many medications that can impact ARTs. Please review and update your medication at least 4 weeks before the ART appointment. Please update your list in the Patient Gateway, and with a paper copy that you keep with you. If any of your medications are on the *Autonomic Reflex Testing Medication List* attached to this form, please consult with the doctor who ordered the test, and the doctor who prescribes those medications, in order to discuss whether you should hold the medications prior to testing. If it is safe to do so and cleared by your doctor, stop taking those medicines at least 5 half-lives before the ARTs (usually a few days): consult *Autonomic Reflex Testing Medication List* for details of timing. Bring your actual medications to the test; you can take them once the test is complete. ARTs can still be done while taking medications, so if you are uncertain, or cannot reach your doctor, do not stop your medications.

Do not stop anti-seizure, immunosuppressive, heart, or thyroid medications

Do not stop anticoagulants (blood thinners), mood stabilizers, or benzodiazepines

Never stop any prescribed medications without your doctor's approval

Stopping certain medications suddenly can lead to serious injury or death

24-48 hours before your test appointment:

- Make sure you know where your appointment is, and what time you need to leave, accounting for traffic and parking time.
- Update your current medication list in the MGB MyChart Patient Gateway, or a paper list
- **Follow your doctor's instructions on whether you need to hold any particular medications**

- Stop taking optional, over the counter “as needed” medications, such as cold, flu, or sleep meds
- Complete the attached *Autonomic Intake Questionnaire*, or complete it electronically in the MGB MyChart Patient Gateway. Answer all questions - do not leave anything blank.

On the day of testing:

- **Take your medications as usual (unless your provider tells you not to)**
- Please arrive *at least* 30 minutes before your scheduled appointment time, and consider leaving more time to account for traffic and parking. If you arrive late, you may be asked to reschedule.
- Bring your medications, and a complete and updated list of your medications (including over the counter and “as needed” medications). Make note of when you last took them. If you do not bring them, the test may not be accurate, and we may have to reschedule.
- Please drink a lot of water and fluids in the 24 hours leading up to the test: as much as you want, and at least 8 full 8 oz. glasses of fluid (unless you have a condition where a doctor recommends against drinking fluid).
- Stop drinking and eating 2 hours prior to the test. If you must eat, it must be food that is easy to digest (e.g. no fried food)
- Do not use tobacco of any kind, nicotine via cigarette smoking or vaping, or other recreational substances, including alcohol, for at least 12 hours prior to testing.
- Do not take optional medications for sleep, allergies, or cold/flu for 4-5 days before testing.
- Do not drink coffee or other caffeinated beverages (e.g., tea, soda or energy drinks) for at least 4 hours, and ideally 8 hours, before your testing appointment.
- Compression garments should not be worn during the test.
- Do not put any lotions, creams or skin products on the skin after you shower or bath
- Because ARTs require access to your arms and legs, please wear loose-fitting clothing (e.g. pants that pull up to the mid-thigh and sleeves that roll up to the shoulders), or bring extra clothing to change into (e.g. shorts and t-shirt).
- Be sure you complete the attached *Autonomic Intake Questionnaire*, or complete it electronically in the MGB MyChart Patient Gateway prior to the scheduled visit. Double check that you answered all questions. Do not leave any questions blank; answer as completely as you can.

Risks of Autonomic Function Testing:

There are minimal risks with AFTs. Some patients may experience lightheadedness, dizziness, or nausea during testing. Rarely, patients can pass out with tilt testing, though we try to prevent this and will stop the test early if needed. QSART testing can cause painful tingling, but this is temporary and does not injure the nerves.

Testing Location (Autonomic Laboratory Address):**Massachusetts General Hospital (MGH):**

Neuromuscular Diagnostic Center: 165 Cambridge Street, 8th floor (Suite 820). Boston, MA 02114 (enter zip code in GPS to avoid “look alike” addresses). This is in Charles River Plaza, 2 blocks from the main MGH hospital entrance, next to Whole Foods.

MGH Parking: Charles River Plaza/165 Cambridge Street Garage (underground)

Accommodation and public transit: [Patient & Visitor Information \(massgeneral.org\)](https://www.massgeneral.org/patient-visitor-information)

Brigham and Women’s Hospital (BWH):

Neurodiagnostic Testing Center/EMG Lab: Hale Building for Translation Medicine (Ground Floor), 60 Fenwood Rd, Boston, MA 02115

BWH Parking: [60 Fenwood Road Garage](https://www.bwh.harvard.edu/parking)

Accommodation and public transit: [Hale Building for Transformative Medicine - Brigham and Women's Hospital \(brighamandwomens.org\)](https://www.brighamandwomens.org/hale-building)

MGB North (Wentworth-Douglas Hospital/Coastal Neurology Services):

73 Corporate Drive, Suite 200, Bldg B., Portsmouth, NH 03801

Thank you for trusting the MGB Autonomic Team with your medical care. We look forward to seeing you soon for your testing.

Sincerely,

Nathaniel M. Robbins MD
Director, MGB Program in Small Fiber and Autonomic Neurology

Khosro Farhad MD
Director, MGH Autonomic and Small Fiber Neuropathy Clinic

Erika Williams MD, PhD

Priyanka Shekhawat MD

MGB Program in Small Fiber and Autonomic Neurology
Massachusetts General Hospital
Wentworth-Douglas Hospital
Brigham and Women’s Hospital
Harvard Medical School